ABSTRACT OF THE DISCLOSURE

A wavetable synthesizer is controlled by dynamically determining a present CPU loading estimate associated with a song being played by the wavetable synthesizer. An interpolation degree is determined based on the present CPU loading estimate, and the wavetable synthesizer is adjusted to utilize the interpolation degree when playing the song. This technique can be used to enable the wavetable synthesizer to generate a varying number of simultaneous voices at, for example, a highest-quality without exceeding a predetermined maximum permissible CPU load limit.